

## **PMOC MONTHLY REPORT**

**Honolulu Rail Transit Project**  
City and County of Honolulu  
Honolulu Authority for Rapid Transportation (HART)  
Honolulu, HI

June 2014 (FINAL)

PMOC Contract Number: DTFT60-09-D-00012  
Task Order No. 2: Honolulu Rail Transit Project  
Project No: DC-27-5140  
Work Order No. 1  
OPs Referenced: OP 1 and 25

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Length of Time Assigned: Five Years (November 18, 2009 through November 17, 2014)

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## 1.0 EXECUTIVE SUMMARY

### 1.1 Project Description

- **General Description:** The Project is a 20-mile-long elevated fixed guideway rail system along Oahu's south shore between East Kapolei and Ala Moana Center. The Project will include 21 stations. The alignment is elevated, except for a 0.6-mile at-grade portion at the Leeward Community College station. The Project is planned to be delivered in four guideway segments.
  - Segment I (West Oahu/Farrington Highway) – East Kapolei to Pearl Highlands (7 miles/7 stations)
  - Segment II (Kamehameha Highway) – Pearl Highlands to Aloha Stadium (4 miles/2 stations)
  - Segment III (Airport) – Aloha Stadium to Middle Street (5 miles/4 stations)
  - Segment IV (City Center) – Middle Street to Ala Moana Center (4 miles/8 stations)
- **Length:** 20 miles
- **No. of Stations:** 21
- **Additional Facilities:** Maintenance and Storage Facility and parking facilities
- **Vehicles:** 80 vehicles
- **Ridership Forecast:** Weekday boardings – 99,800 (2020); 114,300 (2030)

### 1.2 Project Status

- Primary construction activities planned for the next 60 days include:
  - West Oahu /Farrington Highway (WOFH) Design-Build (DB) Contract – Utility relocations; construction of drilled shafts and columns; fabrication of precast segments; and erection of precast segments. Erection of precast segments is slower than planned. HART has indicated KIWC is developing a recovery strategy.
  - Kamehameha Highway Guideway (KHG) DB Contract – Utility relocations; method and test shafts
  - Maintenance and Storage (MSF) DB Contract – Retaining wall construction; utility installation; and installation of building foundations.
- The following table presents the status of the current design and construction contracts:

Contract	Contractor	Contract Value	Expended	Status
WOFH DB	Kiewit Infrastructure West Company (KIWC)	\$570.0M	\$240.7M	Utility relocations; construction of drilled shafts and columns; design activities are ongoing; fabrication of precast segments; and erection of precast segments.
KHG DB	KIWC	\$378.8M	\$168.8M	Utility relocations; method and test shafts; design activities ongoing
MSF DB	Kiewit/Kobayashi Joint Venture (KKJV)	\$229.9M	\$95.9M	Retaining wall construction; utility installation; and installation of building foundations.
Core Systems Contract (CSC)	Ansaldo Honolulu Joint Venture (AHJV)	\$602.9M	\$65.0M	Interim design activities ongoing.
Airport Guideway and Utilities Design	AECOM	\$42.1M	\$31.9M	FD activities ongoing. Invitation for Bids for Airport/City Center Guideway to be issued June/July 2014. HART to review timing of Geotechnical Data Report (GDR) in relation to the anticipated bid due date.
City Center Guideway and Utilities Design	AECOM	\$44.8M	\$25.1M	See above
Farrington Station Group Design 1 & 2	HDR/HPE, Inc. URS	\$12.2M	\$9.6M	Invitation for Bids for Westside Stations Group was issued May 20, 2014.
West Oahu Station Group	URS	\$7.8M	\$5.9M	See above
Kamehameha Station Group Design	Anil Verma Associates, Inc.	\$8.7M	\$7.3M	See above
Airport Station Group Design	AECOM	\$10.1M	\$7.8M	FD activities ongoing
Dillingham and Kaka'ako Station Group design	Perkins & Will	\$18.3	\$5.7M	Definitive design activities ongoing
Elevators and Escalators	Schindler Elevator Corp	\$50.9	\$0M	PE activities started for West Loch and Waipahu Stations

HART has established design review milestones according to the following stages of design development:

- (1) Definitive Design or Preliminary (PE) – Intended to verify that the concepts proposed meet HART Concept Documents (or provide substantiated reason for change), and to verify that design complies with the Contract requirements.
- (2) Interim Designs – Intended to resolve conflicts and unresolved comments from the Definitive Design and prior to Final Design. Workshops, meetings and “over-the-shoulder” reviews facilitate interim design reviews by HART.
- (3) Pre-Final Design (FD) (90% design)
- (4) Final Design (100% design)

The following table provides a summary of Design Percent Complete on all contracts provided for the project:

Item	Contract Number	Final Design Contracts	Contractor/Consultant	Percent Complete
1	DB-120	WOFH	KIWC	96%
2	DB-320	KHG	KIWC	95%
3	DB-200	MSF	KKJV	100%
4	DBOM-920	CSC	AHJV	42%
5	FD-430	Airport Segment Guideway and Utilities Final Design	AECOM	90%
6	FD-530	City Center Segment and Utilities Final Design	AECOM	75%
7	FD-140	West Oahu Station Group (WOSG)	URS	98%
8	FD-240	Farrington Highway Station Group (FHSB) 1 & 2	HDR/URS	98%
9	FD-340	Kamehameha Highway Station Group (KHSB)	Anil Verma	98%
10	FD-245	Pearl Highlands Parking Structure/Bus Transit Center	DB procurement ongoing [Note: GEC 2 completed 10% drawings.]	10%
11	FD-440	Airport Station Group Design	AECOM	90%
12	FD-600	University of Hawaii (UH) West Oahu Park and Ride/Ho'opili Station Design	URS	10%
13	FD-550	Dillingham & Kaka'ako Station Group Design	Perkins & Will	40%
14	MI-930	Elevators and Escalators	Schindler	3%

The Total Design Percent Complete is approximately 73% as of April 2014. Final Design work and engineering activities are still proceeding on all other contracts that have been awarded to date.

### 1.3 PMOC Issues or Concerns

The following key issues or concerns have been identified:

- Project Controls
  - Budget – The PMOC met with HART on March 12, 2014 to discuss the cost estimate update. We reviewed the status of all 46 contract packages identified in the Contract Packaging Plan (CPP). The biggest concern is the revised engineer's estimate for the Airport and City Center Guideway and Utilities contract, which is considerably higher than the FFGA budget. The PMOC will review the cost estimate in detail when the revised information is provided.
  - Schedule – HART anticipates submitting an updated Master Project Schedule (MPS) that includes the CSC contract schedule by July 2014 for PMOC review. It will not consist of a full re-baseline since some issues with AHJV contract schedule will likely remain unresolved. The AHJV schedule shows the Interim Revenue Service Date (RSD) as December 2017 and the full RSD as May 2019 in AHJV schedule. HART target dates are June 2017 for Interim RSD and March 2019 for full RSD. HART is implementing measures to maintain these RSDs.
  - Contingency – HART's current assessment indicates a balance of uncommitted contingency of \$397 million (\$66.3M in unallocated and \$331.1M in allocated).

The reduction from the previous month reflects some of the PMOC adjustments that were identified at the Risk Refresh Workshop.

- The PMOC has emphasized the need for HART to revisit both its primary and secondary mitigation measures. HART must still develop robust secondary mitigation strategies. Based on the PMOC's initial review of the information provided to date, it is possible that a recommendation for HART to develop aggressive cost containment measures may be made.
- HART must execute a license agreement with the Department of Hawaiian Home Lands (DHHL) for the MSF on the Navy Drum Site. A Consent to Construct is in place. The license agreement was approved by City Council in August 2013 and is awaiting final execution. HART is awaiting confirmation from DHHL that license agreement has been executed.
- HART intends to build an interim park-n-ride facility at the University of Hawaii West Oahu Station. This facility will be in use until the developer completes the structure over the Kaloi Channel that allows for access to the permanent location of the park-n-ride facility. HART is evaluating the issue of either using federal funds or local funds to build the interim facility. However, the PMOC has cautioned HART about the use of federal funds to build an interim facility that will be replaced by a permanent facility constructed using federal funds. Clarification by HART on the use of funds for this work is needed. UH-West Oahu intends to use the interim facility for campus parking after HART no longer has need for the facility. However, it is not known how long the interim facility will be in use before the permanent facility can be constructed.
- HART has not received a response from the Navy regarding their December 2013 letter requesting a waiver regarding the new Navy Policy requiring monetary compensation for property acquisitions, easements and administrative costs. HART has reported that the waiver request has been elevated from the Navy regional office to the Commander in Chief Pacific (CINCPAC), but the agency does not have an indication on how quickly the request will be addressed.
- HART now plans to start revenue service with 4-car trains in place of the initial plan of 2-car trains based on FTA's acceptance in December 2013. There is still a disagreement between HART and AHJV on the magnitude of the cost savings associated with this change to 4-car trains. At this time, the issue has not been resolved. HART and AHJV are scheduled to meet in July 2014 to discuss commercial terms associated with change to 4-car trains. The PMOC will continue to monitor the progress of discussions to determine the overall impact of this change on the project. If no agreement is achieved, HART will issue unilateral Change Order.
- Change Orders for the amount of \$34 million for settlement of AIS and NTP Delays were approved by the HART Board on May 15, 2014. The Change Orders address delay impacts to the WOFH DB Contract, KHG DB Contract, and MSF DB Contract. One issue that was not included in the settlement agreement is escalation. HART's estimate of the impact of escalation is not in agreement with the Kiewit's estimated escalation.

HART has requested Kiewit to present its justification for the estimated escalation. In place of a global settlement on escalation, HART has stated that KIWC will be required to submit change requests for all cost components associated with escalation for which KIWC believes HART is responsible. This will be tedious to both parties, but appears to be the only means of resolving the issue. The PMOC will continue to monitor the progress of discussions to determine the overall impact on the project. HART expects Kiewit to submit its first claim for escalation on materials purchased in June. The PMOC will continue to monitor the progress of discussions to determine the overall impact of this change on the project. Change Orders for the amount of \$34 million for settlement of AIS and NTP Delays were approved by the HART Board on May 15, 2014. PMOC has recommended that HART provide a detailed summary of these Change Orders to FTA. HART provided the PMOC with DRAFT summary for review.

- Hawaiian Electric Companies (HECO) has a collective bargaining agreement that has different wage scales and allows payment to its labor forces biweekly, which does not satisfy Davis-Bacon. HECO intends to seek a waiver at the state and federal level on this requirement. HECO has made substantial progress and continues to move forward to meet all requirements of Davis-Bacon. Currently, HECO is in the process of finalizing additional written information/documents requested by the US Department of Labor (DOL) and Hawaii Department of Labor and Industrial Relations (DILR) to support their waiver request. Meetings and interviews have been scheduled with the labor standards enforcement agencies.
- The PMOC met with HART to discuss a letter from HDOT to HART dated April 25, 2014 regarding HDOT approval for bid plans. The PMOC and HART reviewed each of the bulleted items to understand the nature of the concern and path to resolution. HART indicated that they have been coordinating with HDOT on all items identified in the letter. A meeting was held May 16, 2014 to discuss several of those items. HART is also planning to respond to the HDOT letter.
- Airport and City Center Guideway and Utilities – Invitation For Bid (IFB) is to be issued in June/July 2014. However, HART reported that Geotechnical Data Report (GDR) for City Center may not be available until late in bidding or possibly after bids are due. This was a result of the federal lawsuit injunction. The PMOC cautioned HART in accepting bids without providing the contractors with this information. HART will review the timing for completion of the GDR in relation to the anticipated bid due date.

## 1.4 Core Accountability Items

Project Status: FFGA		Original at FFGA	Current Estimate
<b>Cost</b>	Cost Estimate	\$5,122,000,000	\$5,122,000,000
<b>Contingency</b>	Unallocated Contingency	\$101,900,000	\$101,900,000
	Total Contingency (Allocated plus Unallocated)	\$643,600,000	\$397,000,000
<b>Schedule</b>	Revenue Service Date (RSD)	1/31/2020	1/31/2020
<b>Total Project Percent Complete</b>	Based on Expenditures	22.0% (April 2014)	
	Based on Earned Value*	45.1%	

*\*Overall project progress is based on the weighted value progress of the individual construction and design contracts.*

Major Issues	Status	Comments/Planned Action
<p>Technical Capacity and Capability (TCC) Issues</p>	<p>PMOC had recommended that HART engage a consultant to perform independent cost estimates for the remaining contract packages, including any repackaging efforts.</p> <p>The PMOC is concerned with a number of vacant key positions within HART.</p> <p>The PMOC is concerned with the vacant CSC Project Controls Manager position.</p>	<p>HART has enlisted a subconsultant under the Program Management Consultant contract to provide these services.</p> <p>Following is the status of key positions within HART:</p> <ul style="list-style-type: none"> <li>• Assistant Director for ROW – New hire started in May 2014.</li> <li>• Assistant Director for Planning – New hire has started in May 2014.</li> <li>• Change Order Manager – New hire has started in May 2014.</li> <li>• Deputy Director of Engineering and Construction – New hire started in May 2014.</li> <li>• Deputy Director of Construction – New hire will start in June 2014.</li> <li>• Assistant Deputy Director of Construction – New hire will start in July 2014.</li> <li>• Risk Manager – GEC 3 Project Manager has been identified as Interim Risk Manager; PMOC has recommended that HART make this a priority.</li> <li>• HART has indicated that additional Deputy positions will be created.</li> </ul> <p>AHJV has filled the CSC Project Controls Manager position on an interim basis while a search for permanent candidate continues.</p>
<p>Potential Cost &amp; Schedule Delays</p>	<p>HART has experienced delays and has incurred costs as a result of both the state and federal lawsuits.</p>	<p>HART continues to analyze the cost and schedule ramifications resulting from the Hawaii Supreme Court AIS ruling. HART resumed construction on September 16, 2013.</p> <ul style="list-style-type: none"> <li>• Budget – PMOC met with HART on March 12, 2014 to discuss the cost estimate update. We reviewed the status of all 46 contract packages identified in the CPP. The biggest concern is the revised engineer’s estimate for the Airport and City Center Guideway and Utilities contract, which is considerably higher than the FFGA budget.</li> <li>• Schedule – HART anticipates submitting an updated MPS that includes the CSC schedule by the end of July 2014 for PMOC review.</li> <li>• Contingency – HART’s current assessment indicates a balance of uncommitted contingency of \$397 million (\$66.3M in unallocated and \$331.1M in allocated). The reduction from the previous month reflects some of the PMOC adjustments that were identified at the Risk Refresh Workshop.</li> </ul>
<p>Remaining Construction Contracts</p>	<p>HART submitted the Contract Packaging Plan in January 2014. Several contract packages have been combined to maximize economies of scale and reduce interface needs between design and construction contractors to achieve both cost and schedule benefits.</p>	<p>HART/PMOC continues to discuss changes being considered for each contract on a monthly basis. Discussions focus on opportunities to reduce costs and accelerate contract-scheduled activities to attain key milestones earlier than targeted.</p>

Major Issues	Status	Comments/Planned Action
General Excise Tax (GET)	GET receipts continue to be an issue.	HART has requested monthly updates from the state on the GET revenues. HART has been receiving GET revenue quarterly. Total GET receipts are slightly lagging but the gap has narrowed. The GET surcharge receipts received to date are approximately \$1.30 billion.
Post-Rod Changes	HART is considering several proposed design changes that may require additional environmental review.	FTA and HART hold bi-weekly meetings to discuss the status of any potential changes. HART has submitted or will submit information on each proposed change for FTA to determine the level of documentation required to assess impacts and subsequent mitigation measures.
Safety and Security Support Request for Proposal (RFP)	HART awarded the contract to Lawson & Associates.	HART issued an NTP in May 2014.
CSC Vehicles	Major Vehicle Subcontractors	AHJV has signed some subcontractor agreements with major vehicle suppliers, but several subcontractor agreements are still outstanding.
West Oahu / Farrington Highway / Kamehameha Station Groups Construction	Invitation for Bids (IFB) was issued May 20, 2014.	
Hawaii Electric Company (HECO)	50 foot offset requirement	HART and HECO have agreed to a trial use of the telescoping bucket truck that is being considered for HECO to maintain 50-foot offset between guideway and power lines. It is anticipated that the truck will arrive in Honolulu in late July, followed by a 3-month trial period. The PMOC is concerned that there could be significant impact to the project if HECO rejects the telescoping bucket truck.
<b>Date of Next Quarterly Meeting:</b>	July 31, 2014	

## 2.0 BODY OF REPORT

### 2.1 Grantee's Capabilities and Approach

#### 2.1.1 Technical Capacity and Capability (TCC)

HART has gone through a considerable number of organizational changes since the FFGA was executed in December 2012. Project staff has begun reviewing the project's numerous plans and procedures to determine whether updates are required to reflect these changes. The PMOC met with HART to discuss the timing of each plan that will require updating as a result of the organization and procedural changes that have occurred.

Following are the status of key positions:

- Assistant Director for ROW – New hire started in May 2014.
- Assistant Director for Planning – New hire has started in May 2014.
- Change Order Manager – New hire has started in May 2014.
- Deputy Director of Engineering and Construction – New hire started in May 2014.
- Deputy Director of Construction – New hire will start in June 2014.
- Assistant Deputy Director of Construction – New hire will start in July 2014.
- Risk Manager – GEC 3 Project Manager has been identified as Interim Risk Manager; PMOC has recommended that HART make this a priority.
- HART has indicated that additional Deputy positions will be created.

#### 2.1.2 Project Controls for Scope, Quality, Schedule, Cost, Risk, and Safety

##### Scope

- As a result of project delays, HART revised the Contract Packaging Plan (CPP). Several contract packages have been combined (Airport/City Center Guideway Construction/City Center Utilities, West Oahu/Farrington/Kamehameha Station Group, Dillingham/Kaka'ako Station Group) to maximize economies of scale and reduce interface needs between design and construction contractors to achieve both cost and schedule benefits.

##### Schedule

- **Preliminary Engineering (PE):** FTA approved entrance into PE on October 16, 2009
- **Record of Decision (ROD):** ROD was issued on January 18, 2011.
- **Final Design (FD):** FTA approved entrance into FD on December 29, 2011.
- **Full Funding Grant Agreement (FFGA):** Executed on December 19, 2012.
- **Grantee Target Start of Revenue Operations for Full Alignment:** March 2019
- **FFGA Revenue Service Date (RSD):** January 31, 2020

## Cost

- HART and the PMOC continue to hold monthly breakout sessions to review changes for each contract. Breakout session discussions focus on opportunities to reduce costs and accelerate contract-scheduled activities to attain key milestones earlier than targeted.

## Quality

Following is a summary of HART Quality Management staff activities:

- HART continues to participate in bi-weekly Quarterly Task Force meetings with contractors and consultants.
- Participated in construction pre-activity meetings on WOFH, KHG and MSF.
- Monitored design and construction activities on all contracts including Inspection Test Plans (ITPs).
- Witnessed post tensioning process of the 1<sup>st</sup> Span (Span No.65) erected on WOFH.
- HART reviewed Non Conformance Reports generated at the construction work sites and casting yard.
- Completed the following audits:
  - Closed Environmental Audit Report of MSF (KKJV) held on March 4, 2014.
  - Reviewing corrective actions and preventative actions in response to the combined internal QA and Safety & Security Audits NCR's and OBS's.
  - HART performed Environmental Compliance Audit of WOSG & KHG on May 20 - 21, 2014.
  - HART to perform QA Audit of Perkins & Will (PW) the designer for the Dillingham & Kaka'ako Station Group Design (SKSG) on June 18 – 19, 2014.
  - HART to perform QA Audit of AHJV from June 26 – 27, 2014.

## System Safety and Security

- HART Safety and Security Review Committee have not approved any Certifiable Elements Lists (CEL) or Certifiable Items Lists (CIL) for any active projects. The PMOC requested HART to develop an immediate plan of action to approve the CEL/CIL.

### **2.1.3 Compliance with Applicable Statutes, Regulations, Guidance and FTA Agreements**

#### National Environmental Policy Act (NEPA)

- Proposed Design Changes – HART is considering several proposed design changes that may require additional environmental review. FTA and HART hold bi-weekly meetings to discuss the status of any potential changes. HART has submitted or will submit information on each proposed change for FTA to determine the level of documentation required to assess impacts and subsequent mitigation measures.

## **2.2 Project Scope**

The Project is a 20-mile fixed guideway rail system along Oahu's south shore between East Kapolei and Ala Moana Center. This Project is based on the Airport Alignment, which includes 21 stations. The alignment is elevated, except for a 0.6-mile at-grade portion at the Leeward Community College Station. The Project is planned to be delivered in four guideway segments:

- Segment I (West Oahu/Farrington Highway) – East Kapolei to Pearl Highlands (7 miles/7 stations)
- Segment II (Kamehameha Highway) – Pearl Highlands to Aloha Stadium (4 miles/2 stations)
- Segment III (Airport) – Aloha Stadium to Middle Street (5 miles/4 stations)
- Segment IV (City Center) – Middle Street to Ala Moana Center (4 miles/8 stations)

The alignment will average a total of 99,800 weekday boardings at the RSD in the year 2020 and 114,300 weekday boardings in the year 2030. It will provide two significant areas with potential for Transit-Oriented Development, one near the Airport and one in the surrounding industrial areas. The initial fleet will include 80 “light metro” rail vehicles.

### **2.2.1 Status of Design/Construction Documents**

The status of all contracts is provided in Appendix B. The Total Design Percent Complete is approximately 73%. Final Design work and engineering activities are still proceeding on all other contracts that have been awarded to date. The table in Section 1.2 provides a summary of Design Percent Complete on all contracts provided for the project.

## 2.2.2 Status of Third-Party Agreements

The following table provides the status of Third Party Agreements for the project:

Agreement	Status	Target	Section	Notes/Remarks	Purpose/Description
University of Hawaii (UH) Master Agreement	Pending	September 2014	WOFH, KHG, City Center	Final negotiations are underway. Will secure Right of Construction as not to delay the project.	Needed for columns located on UH property; the master agreement will encompass all campuses that HART project interfaces with
UH -West O'ahu (UHWO) Pre-Construction Right of Entry	Executed		WOFH		Column construction for the WOFH D/B contract within the West Oahu campus. Sub-agreement will also include the UHWO park-and-ride
UH - West O'ahu (UHWO) Construction Right of Entry	Pending	June 2014	WOFH	In negotiations.	
Leeward Community College (LCC) Pre-Construction Right of Entry	Executed		WOFH		Column construction for the WOFH D/B contract within the LCC campus
Leeward Community College (LCC) Construction Right of Entry	Pending	June 2014	WOFH	In negotiations.	
UH Urban Garden Pre-Construction Right of Entry	Executed		KHG		Column construction for the KHG D/B contract
UH Urban Garden Construction Right of Entry	Pending	June 2014	KHG	In negotiations.	
DR Horton Agreement for Construction	Executed		WOFH	Allows for construction to proceed	Column construction for the WOFH D/B contract in the Ho'opili area
DR Horton Final Easement Agreement	Pending	December 2014	WOFH	Document in process with DR Horton	
Honolulu Community College (HCC) Pre-Construction Right of Entry	Executed	April 2014	City Center		Column construction for the City Center section
Honolulu Community College (HCC) Construction Right of Entry	Pending	July 2014	City Center	In negotiations.	
Department of Land and Natural Resources (DLNR) Right of Entry	Executed		WOFH	Right of entry is in place	Column construction for the WOFH D/B contract
Department of Land and Natural Resources (DLNR) Easement	Pending		WOFH	Easement documents in process	
Department of Education Master Agreement and Consent to Construct	Executed	May 2014	WOFH	ROE is pending to allow entry for work to proceed; Master Agreement is pending	For site improvements related to the construction of the Guideway at Waipahu High School
Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry	Executed		KHG	Limited ROE granted for staging for Kiewit for KHG Contract	Column construction for the KHG D/B contract

<b>Agreement</b>	<b>Status</b>	<b>Target</b>	<b>Section</b>	<b>Notes/Remarks</b>	<b>Purpose/Description</b>
Aloha Stadium / Department of Accounting & General Services (DAGS) Easement	Pending	September 2014	KHG	Easement in process	Column construction for the KHG D/B contract and the construction of the park-and-ride lot
DHHL Master Agreement	Executed		WOFH, MSF		Column construction on the WOFH section and the construction of the Maintenance and Storage Facility
DHHL Consent to Construct	Executed		WOFH, MSF	Consent to construct in place.	
DHHL License	Pending	June 2014	WOFH, MSF	License agreement approved by City Council. Awaiting final execution	
HDOT Master Agreement	Executed		WOFH		Joint Use & Occupancy for Farrington and Kamehameha Highways for the construction of the Guideway from Kaploei to Pearlridge
HDOT Joint Use & Occupancy (JU&O) Sub-agreement	Executed		WOFH		
HDOT Master Agreement for KHG, Airport and City Center	Executed		KHG, Airport, City Center		Joint Use & Occupancy for Kamehameha and Nimitz Highways for the construction of the Guideway from Pearlridge to downtown Honolulu.
HDOT JU&O Sub-agreement	Executed		KHG Airport City Center		Joint Use & Occupancy for construction of the Guideway for the KHG D/B contract
HDOT SOA MOU	Executed		Program		Provides funding for HDOT personnel/support to implement the required State Safety Oversight Program
OCCC/Hawaii Department of Public Safety Agreement Dillingham Blvd	Pending	July 2014	City Center	Finalizing requirements.	Required due to parking space reduction at OCCC for roadway widening.
HI Community Development Agreement (HCDA)	Pending	Oct 2014	City Center	Awaiting final design requirements for the guideway.	Required for the column construction for City Center Guideway
DAGS	Pending	Oct 2014	City Center	Awaiting final design requirements for the guideway.	
U.S. Navy / General Services Administration (GSA)	Pending	N/A	Airport	Easements and fee taking are being processed by the Navy. Under new directive Navy will charge for all licenses and easements.	For column construction of the Airport section and the Pearl Harbor Station
U.S. Post Office Honolulu Processing Center	Pending	Oct 2014	Airport	Finalized design. Title Search and mapping have been initiated.	Easement needed for column construction of the Guideway in the Airport

<b>Agreement</b>	<b>Status</b>	<b>Target</b>	<b>Section</b>	<b>Notes/Remarks</b>	<b>Purpose/Description</b>
Federal Court House/GSA	Pending	Oct 2014	City Center	Awaiting final design requirements for the guideway	Easement needed for column construction of the Guideway in the Airport
Pacific Guardian Center	Pending	Dec 2015	City Center	Awaiting final design requirements for the guideway and Downtown station.	Required for the column construction for City Center Guideway and Downtown station
Howard Hughes Corporation – Joint Development Agreement	Pending	Dec 2015	City Center	Awaiting final design requirements for the guideway and Kakaako station.	Required for the column construction for City Center Guideway and Kakaako station
Sam House Development LLC – Joint Development Agreement	Pending	Dec 2015	City Center	Awaiting final design requirements for the guideway and Ala Moana Center station.	Required for the column construction for City Center Guideway and Ala Moana Center station
GGP Ala Moana LLC – Joint Development Agreement	Pending	Dec 2015	City Center	Awaiting final design requirements for the guideway and Ala Moana station.	Required for the column construction for City Center Guideway and Ala Moana Center station

*NOTE: ROW – Right of way  
ROE – Right of entry*

Pending Third Party Agreements are not currently having an effect on the MPS, but they may become critical if adequate progress is not made.

### **2.2.3 Delivery Method**

HART revised the Contract Packaging Plan (CPP). Several contract packages have been combined (Airport/City Center Guideway Construction/City Center Utilities, West Oahu/Farrington/Kamehameha Station Group, Dillingham/Kaka'ako Station Group) to maximize economies of scale and reduce interface needs between design and construction contractors to achieve both cost and schedule benefits.

Construction of the project guideway is to be implemented in four segments. The method of delivery for the four guideway segments is as follows:

- Segment I – East Kapolei to Pearl Highlands – Design-Build (DB)
- Segment II – Pearl Highlands to Aloha Stadium – DB
- Segment III & IV (Combined) – Aloha Stadium to Middle Street Station to Ala Moana Center – Design-Bid-Build (DBB)

### **2.2.4 Core Systems and Vehicle Status**

AHJV will design, furnish, install, test, and commission passenger vehicles, operating systems, auxiliary vehicles and equipment, and appurtances, in support of incremental opening of the System. The following table provides a status of the Core Systems and Vehicle activities associated with the project:

<b>Core System Description</b>	<b>Status</b>
<b>Core System - General</b>	
NTP Delay Claim	AHJV has asserted that it has had a 9-month delay in starting work due to CSC protest.
Hawaiian Electric Companies (HECO) Estimated Traction Power Demand	HART to provide HECO with AHJV simulations to estimate power demand based on actual operation scenarios. AHJV finalized consumption estimate. AHJV submitted revised simulations for fail over criteria and discussions with HECO are ongoing.
HECO Activation Dates	HART and HECO are coordinating project schedule and HECO activation start dates for power.
HECO Service Requests	AHJV has submitted HECO service requests for all system sites. Design coordination is progressing.
Fare Collection System	HART is reviewing possibility of installing fare gates.
System Performance Design	There are some concerns with AHJV's method for calculating headways and round trip times. HART received updated System Performance Documents and continues discussions with AHJV. Alignment changes from Airport and City Center Fixed Facility Contractors may affect system performance.
Wi-Fi	HART to make provisions for installing Wi-Fi in vehicles.
<b>Core System Train Control/SCADA Subsystem</b>	
Yard Derailer	HART is evaluating potential costs associated with new equipment.
<b>Core System Traction Electrification</b>	
Uninterruptible Power Supply (UPS)	UPS loads under discussion between HART and AHJV.
Additional HECO substation	West Loch station and MSF test track may be affected by additional HECO substation needed to provide the powered required.
HECO Activation	There may be a potential change order to AHJV for activation of Traction Power Substations for all system sites. There is a disagreement regarding the work to be performed by HECO and AHJV that could result in several million dollars. This issue has not been captured in HART's forecast but has been generally identified in the Risk Register.
<b>Core System Communication Subsystems</b>	
Obstacle Detection	Obstacle Detection via on-board CCTV under discussion. Pending design solution from AHJV.
<b>Core System O&amp;M Subsystem</b>	
MSF Yard Configuration	HART and AHJV are in the process of evaluating Tiger team recommendations. The Tiger team consists of HART/AHJV/KKJV and Lea + Elliot. The Tiger team is evaluating traction electrification system, MOW Vehicles, Train Control, track configuration and interface issues.
MSF O&M	AHJV needs to submit Operations and Maintenance (O&M) procedures.
<b>Core System Safety and Security</b>	
Safety and Security	Open safety items issues log needs to be maintained
<b>Core System Vehicle Subsystem</b>	
Vehicle Schedule	AHJV is restructuring baseline schedule to include vehicle related activities, including change to 4-cars trains, Platform Screen Gates, safety activities and revision of Ticket Vending Machines placement.  Extrusion of car bodies is scheduled to begin in June or July 2014 Car production will begin in June/July 2014. Delivery of first car is scheduled for February 2016 (per current AHJV schedule).
<b>Fire Detection Subsystems</b>	

<b>Core System Description</b>	<b>Status</b>
Fire Detection	Fire Detection configuration is needed for the Operations Service Building (OSB).

## 2.3 Project Management Plan and Sub-Plans

The following table presents the status of each of the grantee's management deliverables.

Sub-Plan	Revision No.	Date	Notes
Project Management Plan (PMP)	5.0	29-Jun-12	Approved; HART is in the process of updating
Quality Management Plan (QMP)	2A	31-Jan-14	PMOC provided review comments on March 4, 2014. HART is in the process of updating.
Real Estate Acquisition and Management Plan (RAMP)	5	01-Jun-12	Accepted; HART is in the process of updating
Bus Fleet Management Plan (BFMP)	3	Mar-12	Accepted
Rail Fleet Management Plan (RFMP)	0.1	Mar-12	Accepted; HART is in the process of updating
Safety and Security Management Plan (SSMP)	4	05-Jun-13	Accepted
Safety and Security Certification Plan (SSCP)	3	28-Jun-13	Accepted
Configuration Management Plan	2A	07-Mar-14	Under PMOC review
Staffing and Succession Plan	6A	31-Jan-14	PMOC provided review comments on March 5, 2014; HART is in the process of updating.
Risk and Contingency Management Plan (RCMP)	0	29-Jun-12	Accepted; has been routed for signature by HART
Operating Plan	0.2	29-Jun-12	Accepted
Force Account Plan	0.3	05-Jan-12	Accepted
Mitigation Monitoring Program	0	15-Mar-12	Accepted
Interface Management Plan	0.1	17-Jan-12	Accepted
Contract Packaging Plan	4B	28-Jan-14	Under PMOC review; comments will be provided to HART after the Risk Refresh on April 15, 2014.
Claims Avoidance Plan	0.1	24-Jan-12	Accepted
Construction Management Plan (CMP)	2A	07-Mar-14	PMOC provided review comments on April 4, 2014; HART is in the process of updating.
Contract Resident Engineer Manuals (DB & DBOM)	2	26-Jul-13	PMOC provided review comments on March 5, 2014; HART is in the process of updating.
Contract Resident Engineer Manuals (DBB)	1.0	28-Jan-14	PMOC provided review comments on March 6, 2014; HART is in the process of updating.
Project Procedures			HART is in the process of updating several procedures based on management deliverable updates in 2014.

HART is in the process of updating several of its procedures and management plans including the PMP. These updates are necessary due to the organizational changes enacted by the Executive Director and the contract packaging changes that are being planned. HART submitted DRAFT updates of the, SSMP, SSCP, RAMP, CMP, CPP, Staffing and Succession Plan, QMP, RE Manual for DB and DBOM, RE Manual for DBB and two change order procedures to date. HART is in the process of finalizing these management plans based on the PMOC comments they have received. The PMOC is concerned that HART has several new consultants that have

started or are about to start, although HART’s procedures and management plans are outdated. It is critical for HART to update these plans and procedures immediately.

## 2.4 Project Schedule Status

HART had directed the Design-Build (DB) contractors to re-baseline/revise their Critical Path Method (CPM) schedules. HART has accepted the West Oahu/Farrington Highway Guideway (WOFH), Kamehameha Highway Guideway (KHG), and Maintenance and Storage Facility (MSF) contractor “re-baseline/revised” schedules and the new dates have been incorporated into the MPS.

HART anticipates submitting an updated Master Project Schedule (MPS) that includes the CSC contract schedule by July 2014 for PMOC review. The PMOC has consistently recommended since July 2013 that HART work closely with the CSC scheduler and management team during the re-baseline/ revision CPM schedule development process. The CSC Contractor has admittedly struggled with staffing challenges and has replaced several key management staff members. Recent changes from a three-car to four-car consist also has created reason to revise the CSC schedule. Likewise, HART and the CSC have been negotiating and re-verifying the anticipated delivery date of the first set of rail vehicles. The CSC re-baseline schedule is critical as it ties into other adjacent project schedules and will also verify HART’s interim opening milestone date. The PMOC has continually stated it is not concerned about the interim opening date and that HART should carefully reconsider the associated costs and time needed to perform the interim opening.

The PMOC has stressed the importance of validating all major interface logic connections between the individual contractor schedules. The PMOC has recommended that HART should get in front of the schedule review process to ensure that the HART management team can effectively manage the schedule. HART has engaged the new GEC III consultant and the new CE&I consultants during the MPS refinement process and has received valuable input and validation thus far. Furthermore, the PMOC provided HART a forensic schedule analysis report that indicated various errors, warnings, and general “housekeeping” corrections needing correction. HART project control staff stated that they had addressed most of the comments.

The RSD identified in the FFGA is January 30, 2020. HART’s current MPS identifies the target date for the start of interim revenue service as June 2017 and revenue service as March 2019. The table below provides a comparison of key milestone dates at time of FFGA application and the current MPS.

Milestone Description	Activity ID	Finish Date		Variance (Days)
		FFGA Application Baseline	Current MPS	
Interim Revenue Service	MM-0100	29-Jun-16	27-Jun-17	(363)
Target for Full Revenue Service	DBOM-9270	12-Mar-19	31-Mar-19	(19)

The table below includes anticipated start dates for the remaining contracts yet to bid:

<b>Contract No.</b>	<b>Description</b>	<b>Early Start</b>
DBB505-45	Airport Utilities Relocation (Issue NTP)	16-Jun-14
DBB170-2020	West Oahu, Farrington Highway, Kamehameha Station Groups (NTP)	08-Sep-14
DBB510-85	City Center Segment Utilities (Construction NTP)	15-Dec-14
DBB520-2020gw	Airport and City Center Guideway (Construction NTP)	15-Dec-14
DBB470-2020	Airport Station Group (Construction NTP)	01-Mar-15
DBB570-2020	Dillingham Station Group (Construction NTP)	15-Dec-15
DBB575-2020	Kaka'ako Station Group (Construction NTP)	15-Dec-15
PHPS-1020	Pearl Highlands Parking Struct. & H2 Ramps (Design-Build NTP)	02-Jan-15
DBB600-2620	UH West Oahu Park-n-Ride & Ho'opili Station Finishes (NTP)	16-Sep-16

The following is a look ahead for important activities associated with the Project:

<b>Period: July 2014 – December 2014</b>		
<b>Activity</b>	<b>Responsibility</b>	<b>Date</b>
Monthly Progress Meeting	FTA, HART, PMC and PMOC	July 2, 2014
Quarterly Progress Meeting	FTA, HART, PMC and PMOC	July 31, 2014
Monthly Progress Meeting (Telecom)	FTA, HART, PMC and PMOC	August 13, 2014
Monthly Progress Meeting	FTA, HART, PMC and PMOC	September 10, 2014
Monthly Progress Meeting	FTA, HART, PMC and PMOC	October 8, 2014
Quarterly Progress Meeting	FTA, HART, PMC and PMOC	November 2014
Monthly Progress Meeting	FTA, HART, PMC and PMOC	December 10, 2014

## 2.5 Project Cost Status

The grantee's Base Cost Estimate (BCE) dated March 19, 2012 is \$5.122 billion in Year-of-Expenditure (YOE) dollars, including \$644 million in allocated and unallocated contingency (or 15.0% of the BCE) and \$173 million in financing costs. Of the \$644 million in total contingency, \$101 million is unallocated. The current Project Budget is as follows:

<b>Source</b>	<b>Amount</b>
Base Cost Estimate	\$4,305 billion
Total Contingency	\$0.644 billion
Finance Charges	\$0.173 billion
<b>Total Project Cost</b>	<b>\$5.122 billion</b>

### **Total Expenditures to Date – \$0.962 billion (through April 2014)**

#### 2.5.1 Standard Cost Category (SCC)

The FFGA SCC Workbook is submitted as a separate electronic file. The following table presents the FFGA budget, expenditures to date, and Estimate at Completion (EAC) for each SCC.

SCC	SCC Description	FFGA Budget	Base Cost	Allocated Cont.	Incurred	EAC
<b>10</b>	<b>GUIDEWAY &amp; TRACK ELEMENTS</b>	<b>1,275,328,962</b>	<b>1,114,305,144</b>	<b>161,023,818</b>	<b>44,724,453</b>	<b>1,137,642,296</b>
10.04	Guideway: Aerial structure	1,175,328,184	1,022,380,670	152,947,514	16,970,859	1,042,413,896
10.08	Guideway: Retained cut or fill	8,077,393	7,492,943	584,450	0	6,436,256
10.09	Track: Direct fixation	86,332,027	79,437,204	6,894,823	27,753,594	82,862,790
10.11	Track: Ballasted	3,550,634	3,293,724	256,910	0	2,697,875
10.12	Track: Special (switches, turnouts)	2,040,724	1,700,603	340,121	0	3,231,479
<b>20</b>	<b>STATIONS, STOPS, TERMINALS, INTERMODA</b>	<b>506,165,689</b>	<b>421,804,742</b>	<b>84,360,947</b>	<b>0</b>	<b>396,666,268</b>
20.01	At-grade station, stop, shelter, mall, terminal, platform	7,333,599	6,111,333	1,222,266	0	6,111,332
20.02	Aerial station, stop, shelter, mall, terminal, platform	353,476,148	294,563,457	58,912,691	0	273,163,457
20.06	Automobile parking multi-story structure	79,690,518	66,408,765	13,281,753	0	66,408,765
20.07	Elevators, escalators	65,665,424	54,721,187	10,944,237	0	50,982,714
<b>30</b>	<b>SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS</b>	<b>99,425,456</b>	<b>92,535,013</b>	<b>6,890,443</b>	<b>22,122,286</b>	<b>104,357,057</b>
30.02	Light Maintenance Facility	8,161,279	7,591,887	569,392	180,000	7,586,793
30.03	Heavy Maintenance Facility	40,906,889	38,099,138	2,807,751	2,975,374	39,222,563
30.04	Storage or Maintenance of Way Building	8,382,270	7,797,460	584,810	127,606	7,886,032
30.05	Yard and Yard Track	41,975,018	39,046,528	2,928,490	18,839,306	49,661,669
<b>40</b>	<b>SITWORK &amp; SPECIAL CONDITIONS</b>	<b>1,103,867,264</b>	<b>980,569,426</b>	<b>123,297,838</b>	<b>274,596,322</b>	<b>958,898,165</b>
40.01	Demolition, Clearing, Earthwork	34,695,802	29,980,157	4,715,645	241,537	27,672,011
40.02	Site Utilities, Utility Relocation	350,694,801	299,449,755	51,245,046	11,290,408	303,893,943
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	7,228,935	6,590,542	638,393	681,359	3,777,603
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	30,841,906	26,979,122	3,862,784	4,282,105	31,955,923
40.05	Site structures including retaining walls, sound walls	8,637,582	7,998,960	638,622	575,338	9,061,374
40.06	Pedestrian / bike access and accommodation, landscaping	48,262,816	41,073,897	7,188,919	50,000	41,873,040
40.07	Automobile, bus, van accessways including roads, parking lots	212,536,181	181,979,369	30,556,812	2,089,938	170,399,360
40.08	Temporary Facilities and other indirect costs during construction	410,969,241	386,517,624	24,451,617	255,385,637	370,264,911
<b>50</b>	<b>SYSTEMS</b>	<b>247,460,781</b>	<b>221,284,483</b>	<b>26,176,298</b>	<b>39,450</b>	<b>245,681,123</b>
50.01	Train control and signals	91,492,532	81,982,556	9,509,976	0	105,218,696
50.02	Traffic signals and crossing protection	12,524,011	10,458,227	2,065,784	0	10,251,336
50.03	Traction power supply: substations	32,873,934	29,500,927	3,373,007	0	31,027,311
50.04	Traction power distribution: catenary and third rail	36,426,286	32,878,150	3,548,136	39,450	31,718,447
50.05	Communications	59,889,234	53,691,339	6,197,895	0	54,793,443
50.06	Fare collection system and equipment	10,221,753	9,159,277	1,062,476	0	9,218,099
50.07	Central Control	4,033,031	3,614,007	419,024	0	3,453,791
<b>Construction Subtotal (10 - 50)</b>		<b>3,232,248,152</b>	<b>2,830,498,808</b>	<b>401,749,344</b>	<b>341,482,511</b>	<b>2,843,244,909</b>

SCC	SCC Description	FFGA Budget	Base Cost	Allocated Cont.	Incurred	EAC
<b>60</b>	<b>ROW, LAND, EXISTING IMPROVEMENTS</b>	<b>222,188,386</b>	<b>197,397,947</b>	<b>24,790,439</b>	<b>53,927,996</b>	<b>197,675,747</b>
60.01	Purchase or lease of real estate	201,658,907	179,360,664	22,298,243	50,527,256	179,360,664
60.02	Relocation of existing households and businesses	20,529,479	18,037,283	2,492,196	3,400,740	18,315,083
<b>70</b>	<b>VEHICLES</b>	<b>208,501,186</b>	<b>186,829,020</b>	<b>21,672,166</b>	<b>6,191,924</b>	<b>191,543,017</b>
70.02	Heavy Rail	186,061,066	166,721,385	19,339,681	5,979,024	172,637,073
70.06	Non-revenue vehicles	16,011,166	14,346,923	1,664,243	212,900	13,026,548
70.07	Spare parts	6,428,954	5,760,712	668,242	0	5,879,396
<b>80</b>	<b>PROFESSIONAL SERVICES</b>	<b>1,183,826,026</b>	<b>1,090,438,814</b>	<b>93,387,212</b>	<b>502,940,838</b>	<b>1,075,517,433</b>
80.01	Preliminary Engineering	95,120,484	94,055,262	1,065,222	99,205,571	118,329,880
80.02	Final Design	257,934,908	228,321,632	29,613,276	97,269,985	200,314,527
80.03	Project Management for Design and Construction	385,825,694	366,458,463	19,367,231	231,584,777	360,985,570
80.04	Construction Administration & Management	218,155,752	199,656,728	18,499,024	43,245,435	161,825,681
80.05	Professional Liability and other Non-Construction Insurance	52,138,030	46,549,724	5,588,306	2,474,214	37,216,316
80.06	Legal; Permits; Review Fees by other agencies, cities, etc.	76,135,125	67,641,006	8,494,119	11,066,875	67,717,310
80.07	Surveys, Testing, Investigation, Inspection	24,955,327	21,759,335	3,195,992	10,831,937	64,324,078
80.08	Start up	73,560,706	65,996,664	7,564,042	7,262,044	64,804,071
<b>90</b>	<b>Subtotal (10 - 80)</b>	<b>4,846,763,750</b>	<b>4,305,164,589</b>	<b>541,599,161</b>	<b>904,543,269</b>	<b>4,307,981,106</b>
	<b>UNALLOCATED CONTINGENCY</b>	<b>101,871,170</b>	<b>0</b>	<b>101,871,170</b>	<b>0</b>	<b>101,871,170</b>
<b>100</b>	<b>Subtotal (10 - 90)</b>	<b>4,948,634,920</b>	<b>4,305,164,589</b>	<b>643,470,331</b>	<b>904,543,269</b>	<b>4,409,852,276</b>
	<b>FINANCE CHARGES</b>	<b>173,058,242</b>			<b>0</b>	<b>173,058,243</b>
	<b>Total Project Cost (10 - 100)</b>	<b>5,121,693,162</b>	<b>4,305,164,589</b>	<b>643,470,331</b>	<b>904,543,269</b>	<b>4,582,910,519</b>

## 2.5.2 Contingency

HART has developed a detailed methodology for capturing all potential costs. Any potential changes are entered into HART's online contract management system by the Contract Managers. Project Controls reviews this information and meets weekly with the Contract Managers to agree on a range of potential exposure for each issue. The PMOC is of the opinion that this approach is reasonable for determining a range of exposure.

HART's current assessment indicates a balance of uncommitted contingency of \$397 million (\$66.3M in unallocated and \$331.1M in allocated). The reduction from the previous month reflects some of the PMOC adjustments that were identified at the Risk Refresh Workshop.

## 2.5.3 Funding Sources

The following are the project capital revenue (funding) sources:

Source	Amount
General Excise Tax (GET)	\$3.358 billion
Section 5309	\$1.550 billion
Section 5307	\$0.210 billion
American Recovery and Reinvestment Act (ARRA)	\$0.004 billion
<b>Total</b>	<b>\$5.122 billion</b>

The GET surcharge receipts received to date are approximately \$1.18 billion. The Financial Plan indicates projected GET receipts to be approximately \$1.30 billion at point in the project.

## 2.6 Project Risk

A Risk Refresh Workshop was performed the week of April 11, 2012 to address the Preliminary PMOC findings from a scope, schedule, and cost review, Risk Register and Action Items, and Path Forward.

A second Risk Refresh Workshop was performed on April 15, 2014. Based on the PMOC's initial review of the information provided to date, it is possible that a recommendation for HART to develop aggressive cost containment measures may be made.

The PMOC has emphasized the need for HART to revisit both its primary and secondary mitigation measures. HART engaged its new GEC and CE&I consultants to see if they have any new ideas that have not been considered for primary or secondary mitigation. PMOC and HART held a breakout session in February 2014 to discuss these measures. HART must still develop robust secondary mitigation strategies.

A second Risk Refresh Workshop was performed on April 15, 2014. Based on the PMOC's initial review of the information provided to date, a recommendation for HART to develop aggressive cost containment measures will be made.

## 2.7 Action Items

Item No.	Item	Responsible Party	Date Identified	Date Due	Date Completed	Status
<b>Monthly Progress Meeting</b>						
1	Provide information on resolution of visual barrier for Federal Courthouse	HART	Oct-13	Jun-14		Open
2	Schedule PMP & QMP compliance audit	PMOC	Nov-13	TBD		Open – HART conducted an internal audit in March/April 2014
3	Status of HART's request for waiver from Navy related to fair market value compensation for easements/licenses/acquisition.	HART	Nov-13	Jun-14		Open – Navy waiver request moving through the process.
4	HART to provide summaries of bidability/constructability reviews for Airport and City Center Guideway and Utilities	HART	Dec-13	Jun-14		Open – In progress
5	Provide information and resolution on HECO's 50-foot offset requirement	HART	Mar-14	Jun-14		Open
6	Process Kiewit submission of first claim for materials escalation due to AIS/NTP delay	HART	Mar-14	Jun-14		Open
7	Receive confirmation that license agreement with DHHL has been executed	HART	Mar-14	Jun-14		Open
8	Resolve issue with AHJV regarding cost savings associated with change to 4-car trains	HART	Mar-14	Jun-14		Open
9	Resolve HECO issue with Davis-Bacon requirements	HART/FTA	Mar-14	Jul-14		Open
10	Update primary and secondary mitigation measures	HART	May-13	Jun-14		Open – HART to provide after Risk Refresh Report is submitted by FTA
11	Update MPS to include realistic schedule for City Center ROW acquisitions	HART	Jun-13	Apr-14	May-14	Open (ongoing)
12	Revisit Hold Points after MPS is updated	HART/PMOC	Sept-13	Jun-14		Open
13	Provide System-wide TVA	HART	Apr-14	May-14	Jun-14	Closed
14	Provide CE&I cost estimate for West Side Station Group	HART	Apr-14	Jun-14	Jun-14	Closed
15	Provide CE&I cost estimate for Airport/City Center Guideway	HART	Apr-14	Jul-14		Open
16	Re-baseline MPS	HART	Apr-14	Jul-14		Open
17	Re-baseline budget	HART	Apr-14	Jul-14		Open
18	Re-baseline Financial Plan	HART	Apr-14	Jul-14		Open
19	Provide opening date for interim UH West Oahu	HART	Apr-14	May-14		Open- HART to provide summary at

Item No.	Item	Responsible Party	Date Identified	Date Due	Date Completed	Status
<b>Monthly Progress Meeting</b>						
	Park and Ride Project					FTA Quarterly Meeting
20	Provide list of ROW parcels requiring FTA review over next three months	HART	Apr-14	Jun-14	Jun-14	Closed – HART will have all ROW required by Dec-14
21	Provide Geotechnical Data Report for Airport and City Center Guideway	HART	May-14	Aug-14		Open – HART to provide GDRs to PMOC as they are completed for the 3 zones.
22	Provide FTA with response to HDOT Letter dated April 25, 2014	HART	May-14	Jun-14		Open
23	PMOC requested HART to develop an immediate plan of action to approve the CELs/CILs.	HART	Jun-14	Jul-14		Open
24	HART to provide internal PMP and QMP audits	HART	Jun-14	Jun-14		Open

## APPENDICES

### Appendix A: Acronym List

AHJV	▪ Ansaldo Honolulu Joint Venture
AIS	▪ Archeological Inventory Survey
APS	▪ Adjusted Project Schedule
ARRA	▪ American Recovery and Reinvestment Act
ASG	▪ Airport Station Group
ATC	▪ Alternative Technical Concept
AUG	▪ Airport Utilities Group
AVI	▪ Automatic Vehicle Indication
AVL	▪ Automatic Vehicle Location
BAFO	▪ Best and Final Offers
BCE	▪ Base Cost Estimate
BFMP	▪ Bus Fleet Management Plan
CCUG	▪ City Center Utilities Group
CE&I	▪ Construction Engineering and Inspection
CMP	▪ Construction Management Plan
CPM	▪ Critical Path Method
CPP	▪ Contract Packaging Plan
CSC	▪ Core Systems Contract
CSSO	▪ Chief Safety and Security Officer
DAGS	▪ Department of Accounting & General Services
DB	▪ Design-Build
DBB	▪ Design-Bid-Build
DBOM	▪ Design-Build-Operate-Maintain
DCCA	▪ Department of Commerce and Consumer Affairs
DHHL	▪ Department of Hawaiian Home Lands
DLNR	▪ Department of Land and Natural Resources
DOE	▪ Department of Education
DOT	▪ Department of Transportation
EAC	▪ Estimate at Completion
EIS	▪ Environmental Impact Statement
FD	▪ Final Design
FEIS	▪ Final Environmental Impact Statement
FFGA	▪ Full Funding Grant Agreement
FHSG	▪ Farrington Highway Station Group
FHWA	▪ Federal Highway Administration
FTA	▪ Federal Transit Administration
FY	▪ Fiscal Year
GEC	▪ General Engineering Consultant
GET	▪ General Excise Tax
GSA	▪ General Services Administration
HART	▪ Honolulu Authority for Rapid Transportation
HCC	▪ Honolulu Community College
HCDA	▪ Hawaii Community Development Authority
HDOT	▪ Hawaii Department of Transportation
HECO	▪ Hawaiian Electric Company
HNTB	▪ Howard, Needles, Tammen & Bergendoff
IFB	▪ Invitation to Bid
ITP	▪ Inspection Test Plans
JU&O	▪ Joint Use & Occupancy
KHG	▪ Kamehameha Highway Guideway
KHSG	▪ Kamehameha Highway Stations Group

KIWC	▪ Kiewit Infrastructure West Company
KKJV	▪ Kiewit Kobayashi Joint Venture
LCC	▪ Leeward Community College
LEED	▪ Leadership in Energy and Environmental Design (LEED)
MMP	▪ Mitigation Monitoring Program
MOA	▪ Memorandum of Agreement
MOT	▪ Maintenance of Traffic
MOW	▪ Maintenance of Way
MPS	▪ Master Project Schedule
MSF	▪ Maintenance and Storage Facility
NCR	▪ Non-Compliance Report
NEPA	▪ National Environmental Policy Act
NTP	▪ Notice to Proceed
OCCC	▪ Oahu Community Correctional Center
OCIP	▪ Owner Controlled Insurance Program
OP	▪ Oversight Procedure
PA	▪ Programmatic Agreement
PE	▪ Preliminary Engineering
PM	▪ Project Manager
PMC	▪ Project Management Consultant
PMOC	▪ Project Management Oversight Contractor
PMP	▪ Project Management Plan
PSG	▪ Platform Screen Gate
PW	▪ Project-wide
QA	▪ Quality Assurance
QAM	▪ Quality Assurance Manager
QAP	▪ Quality Assurance Plan
QMP	▪ Quality Management Plan
RAMP	▪ Real Estate Acquisition and Management Plan
RCMP	▪ Risk and Contingency Management Plan
RFMP	▪ Rail Fleet Management Plan
RFP	▪ Request for Proposals
RFQ	▪ Request for Qualifications
ROD	▪ Record of Decision
ROE	▪ Right of Entry
ROW	▪ Right of Way
RSD	▪ Revenue Service Date
SCC	▪ Standard Cost Category
SHPD	▪ State Historic Preservation Division
SOA	▪ State Oversight Agency
SS	▪ Safety and Security
SSCM	▪ Safety and Security Certification Manager
SSCP	▪ Safety and Security Certification Plan
SSMP	▪ Safety and Security Management Plan
SSPP	▪ System Safety Program Plan
SSSPS	▪ System Safety and Security Program Standards
TCC	▪ Technical Capacity and Capability
UH	▪ University of Hawaii
UPS	▪ Uninterruptible Power Supply
VE	▪ Value Engineering
WOFH	▪ West Oahu/Farrington Highway
WOSG	▪ West Oahu Stations Group
YOE	▪ Year of Expenditure

## Appendix B: Contract Status

The following sections provide the status of various ongoing contracts associated with this Project.

Contract	Description	Contractor	Base Contract Value	Change Orders	Change Order %	Current Contract Value	Expended	% Exp.	DBE	Award Date	Compl. Date
MM-901	Program Management Support Consultant (PMSC-2)	InfraConsult LLC	\$33,000,000				\$14,600,000		0%	Mar 2012	Feb 2015
<i>Notes/Issues:</i>											
MM-910	General Engineering Consultant (GEC II)	Parsons Brinkerhoff	\$300,000,000				\$132,000,000		0%	Jun 2011	Pending
<i>Notes/Issues:</i> Contract closeout is pending.											
DB-120	West Oahu/Farrington Highway DB	KIWC	\$482,924,000	\$87,092,959	18%	\$570,016,959	\$240,676,023	42%	0.48%	Nov 2009	Jul 2016
<i>Notes/Issues:</i> <ul style="list-style-type: none"> <li>▪ Revised baseline schedule that reflected AIS delays has been approved.</li> <li>▪ Agreement called for issuance of all four NTPs within 120 calendar days of December 1, 2009.</li> <li>▪ CCO has been approved by HART Board to resolve compensation associated with NTP and AIS Delays. Resolution does not include some components of escalation, which will be settled on case-by-case basis.</li> </ul>											
DB-200	Maintenance and Storage Facility DB	Kiewit/Kobayashi JV	\$195,258,000	\$34,732,244	18%	\$229,990,244	\$95,989,872	42%	0.03%	Jun 2011	Apr 2016
<i>Notes/Issues:</i> <ul style="list-style-type: none"> <li>▪ Revised baseline schedule that reflected AIS delays has been approved.</li> <li>▪ CCO has been approved by HART Board to resolve compensation associated with NTP and AIS Delays. Resolution does not include some components of escalation, which will be settled on case-by-case basis.</li> </ul>											
DB-320	Kamehameha Highway Guideway DB	KIWC	\$372,150,000	\$6,710,981	2%	\$378,860,981	\$93,981,945	25%	0.08%	Jun 2011	Sep 2016
<i>Notes/Issues:</i> <ul style="list-style-type: none"> <li>▪ Revised baseline schedule that reflected AIS delays has been approved.</li> <li>▪ CCO has been approved by HART Board to resolve compensation associated with NTP and AIS Delays. Resolution does not include some components of escalation, which will be settled on case-by-case basis.</li> </ul>											
DBOM-920	Core Systems Contract	Ansaldo/Honolulu JV	\$573,782,793	\$29,167,350	5%	\$602,950,143	\$65,025,069	11%	0.025%	Nov 2011	Mar 2019
<i>Notes/Issues:</i> <ul style="list-style-type: none"> <li>▪ AHJV is restructuring baseline schedule to include vehicle related activities, including change to 4-car trains.</li> <li>▪ AHJV has only signed a few contracts with major vehicle subcontractors.</li> </ul>											
MI-930	Elevators and Escalators Install & Maintain	Schindler Elevator Corporation	\$50,982,714	\$0	0%	\$50,982,714	\$0	0%	0%	May 2013	Jul 2018
<i>Notes/Issues:</i> <ul style="list-style-type: none"> <li>▪ None at this time.</li> </ul>											
FD-140	West Oahu Station Group Construction FD	URS, Inc.	\$7,789,000	\$84,170	1%	\$7,873,170	\$5,871,205	75%	0%	Jun 2012	Dec 2016

Contract	Description	Contractor	Base Contract Value	Change Orders	Change Order %	Current Contract Value	Expended	% Exp.	DBE	Award Date	Compl. Date
<i>Notes/Issues:</i>		<ul style="list-style-type: none"> <li>Revised engineer's estimate exceeds the FFGA budget.</li> </ul>									
FD-240	Farrington Highway Station Group FD	HDR, Inc. / URS	\$9,300,696	\$2,907,349	31%	\$12,208,045	\$9,620,070	79%	4.7%	Jan 2011	Dec 2016
<i>Notes/Issues:</i>		<ul style="list-style-type: none"> <li>Revised engineer's estimate exceeds the FFGA budget.</li> </ul>									
FD-340	Kamehameha Highway Station Group Construction FD	Anil Verma, Inc.	\$8,702,592	\$0	0%	\$8,702,592	\$7,393,143	85%	35.76%	Nov 2012	Dec 2016
<i>Notes/Issues:</i>		<ul style="list-style-type: none"> <li>Revised engineer's estimate exceeds the FFGA budget.</li> </ul>									
FD-430	Airport Section Guideway and Utilities FD	AECOM	\$38,840,960	\$5,015,436	13%	\$43,856,396	\$31,983,079	73%	0.42%	Dec 2011	Jun 2017
<i>Notes/Issues:</i>		<ul style="list-style-type: none"> <li>Airport and City Center Guideway Construction Packages will be combined.</li> <li>Revised engineer's estimate exceeds the FFGA budget.</li> </ul>									
FD-440	Airport Station Group Construction FD	AECOM	\$10,177,365	\$0	0%	\$10,177,365	\$7,834,158	77%	2.31%	Nov 2012	Jul 2017
<i>Notes/Issues:</i>		<ul style="list-style-type: none"> <li>None at this time</li> </ul>									
FD-530	City Center Section Guideway and Utilities FD	AECOM	\$43,948,220	\$938,953	2%	\$44,887,173	\$25,186,351	56%	0.44%	Jul 2012	May 2018
<i>Notes/Issues:</i>		<ul style="list-style-type: none"> <li>Airport and City Center Guideway Construction Packages will be combined.</li> <li>Revised engineer's estimate exceeds the FFGA budget.</li> </ul>									
FD-550	Dillingham and Kaka'ako Station Group Construction FD	Perkins & Will	\$18,321,918	\$0	0%	\$18,321,918	\$5,738,811	31%	0%	Jun 2013	Jul 2018
<i>Notes/Issues:</i>		<ul style="list-style-type: none"> <li>None at this time</li> </ul>									

## Appendix C: Procurement Schedule

Contract No.	Segment	Type Svc	Status	Description	Advertise	NTP	Bid Ready	Complete
MM-945	PW	Services	Future	On-Call Construction Contractor	6/6/2014	8/4/2014	N/A	3/3/2019
FD-245	KHG	Design	Future	Pearl Highlands Parking Structure/Bus Transit Center	3/1/2014	12/28/14	12/30/2013	4/29/2018
DBB-505	Airport	Construction	Future	Airport Section Utilities	12/16/2013	7/1/2014	N/A	12/22/2015
DBB-185	WOFH/ KHG	Construction	Future	West Oahu / Farrington Highway and Kamehameha Station Groups Construction	5/20/2014	9/4/2014	N/A	12/31/2016
DBB-520	Airport	Construction	Future	Airport and City Center Guide Guideway Construction/City Center Utilities	7/1/2014	12/15/2014	N/A	4/29/2018
FD-600	WOFH	Design	Future	UH West Oahu Park-and-Ride and Ho'opili Station Finishes	3/15/2016	9/15/2016	N/A	8/15/2018
DBB-470	Airport	Construction	Future	Airport Station Group	11/1/2014	3/1/2015	N/A	7/15/2017
DBB-580	City Cen	Construction	Future	Dillingham / Kaka'ako Station Group	8/15/2015	12/15/2015	N/A	8/14/2018
DBB-275	KHG	Construction	Future	Pearl Highlands Parking Structure/Bus Transit Center	3/3/2014	12/28/2014	N/A	4/29/2018
DBB-600	WOFH	Construction	Future	UH West Oahu Park-and-Ride and Ho'opili Station Finishes	3/15/2016	9/15/2016	N/A	8/15/2018

Note: PW indicates "Project Wide".

**Appendix D: Open Final Design Approval Letter Requirements**

No.	Item	Completion Date	Comments
<b>Civil Rights</b>			
2	Title VI program must be submitted to FTA at least 30 calendar days prior to June 10, 2013 which is the expiration of the current Title VI approval.	May-13	Open
3	The City will need to perform a Title VI service and fare equity analysis six months prior to revenue operations of the Project.	Jun-14	Open

## Appendix F: Project Overview and Map

**Date:** June 2014  
**Project Name:** Honolulu Rail Transit Project  
**Grantee:** City and County of Honolulu  
**FTA Regional contact:** Catherine Luu  
**FTA HQ contact:** Kim Nguyen

### SCOPE

**Description** The proposed Project is an approximately 20-mile rail alignment extending from East Kapolei to Ala Moana Center.

**Guideway** The majority of the Project is to be built on aerial structure, but the Project also includes a short at-grade section (0.6 miles).

**Stations** 21 stations (20 aerial and 1 at-grade)

**Support Facility** Maintenance and Storage Facility (located near Leeward Community College)

**Vehicles** 80 light metro rail

**Ridership** 99,800 weekday boardings in 2019; 114,300 weekday boardings in 2030

### SCHEDULE

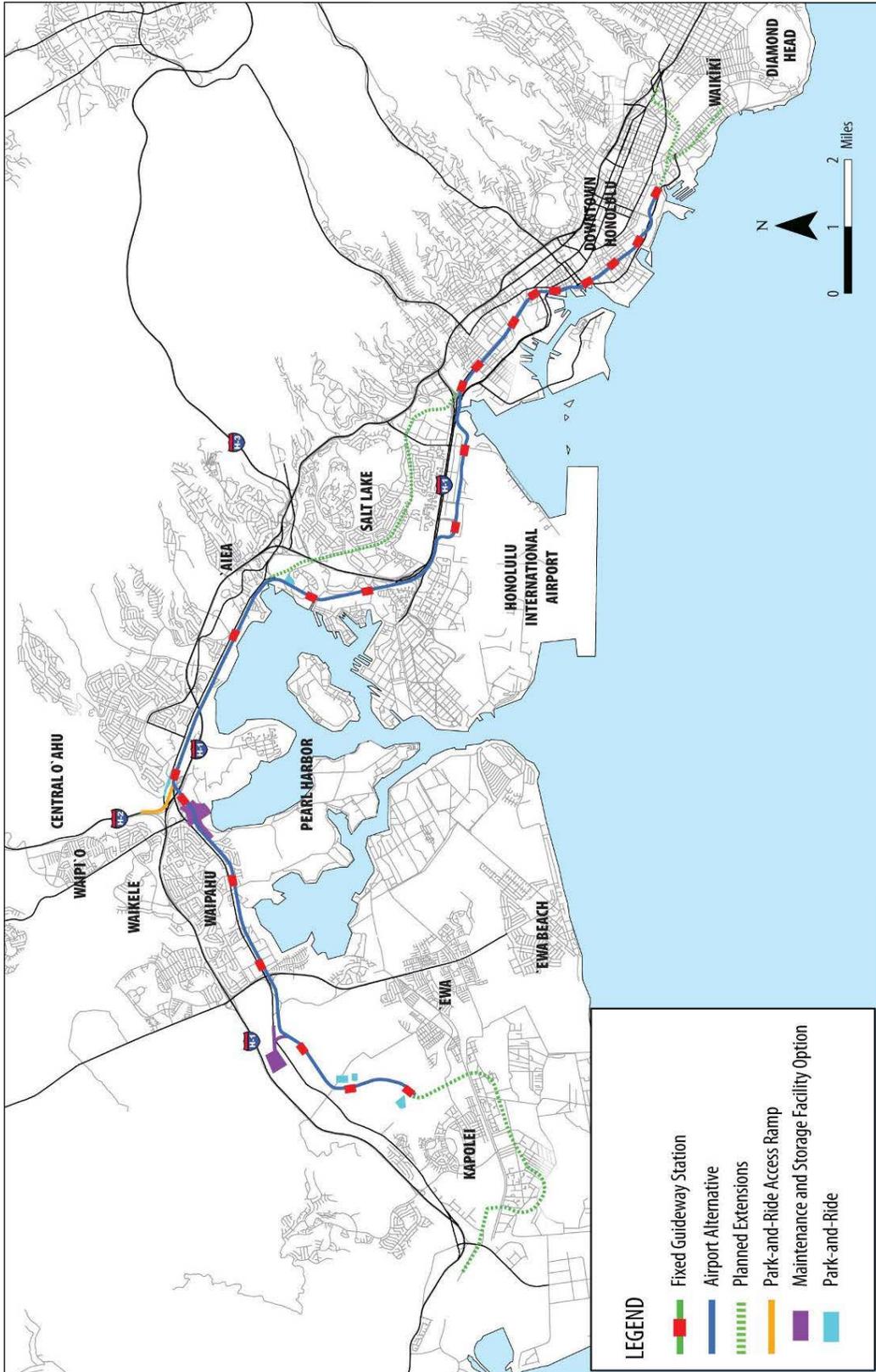
10/09 Approval Entry to PE	03/19 Estimated RSD at Entry to PE
12/11 Approval Entry to FD	03/19 Estimated RSD at Entry to FD
06/12 Request for FFGA	03/19 Estimated RSD at Request for FFGA
12/12 FFGA	01/20 RSD at FFGA

### COST

\$5.348 B Total Project Cost (\$YOE) at Approval Entry to PE  
\$5.126 B Total Project Cost (\$YOE) at Approval Entry to FD  
\$5.122 B Total Project Cost (\$YOE) at request for an FFGA  
\$5.122 B Total Project Cost (\$YOE) at FFGA

\$962M Amount of Expenditures at date of this report  
22% complete (Total Project Expenditures/Total Project Cost)

# Honolulu Rail Transit Project Map



## Appendix G: Safety and Security Checklist

<b>Project Overview</b>			
Project Name	Honolulu Rail Transit Project		
Project mode (Rail, Bus, BRT, Multimode)	Rail		
Project phase (Preliminary Engineering, Final Design, Construction, or Start-up)	FD		
Project Delivery Method (Design/Build, Design/Build/Operate Maintain, CMGC, etc.)	DB, DBB and DBOM		
<b>Project Plans</b>	<b>Version</b>	<b>Review by FTA</b>	<b>Status</b>
Safety and Security Management Plan	3.0	Y	Complete
Safety and Security Certification Plan	2.0	Y	Complete
System Safety Program Plan			Submittal date Mar-13
System Security Plan or Security and Emergency Preparedness Plan (SSEPP)		N	TBD
Construction Safety and Security Plan	1.0	Jun-11	Submitted in Mar-11
<b>Safety and Security Authority</b>	<b>Y/N</b>	<b>Status</b>	
Is the grantee subject to 49 CFR Part 659 state safety oversight requirements?	Y		
Has the state designated an oversight agency as per Part 659.9	Y	Executive Order 10-04 effective April 6, 2010	
Has the oversight agency reviewed and approved the grantee's SSPP as per Part 659.17?	N	Submission/Approval in 2014	
Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21?	N	Submission/Approval in 2014	
Did the oversight agency participate in the last Quarterly Program Review Meeting?	Y	April 16, 2014	
Has the grantee submitted its safety certification plan to the oversight agency?	N	SOA information	
Has the grantee implemented security directives issues by the Department Homeland Security, Transportation Security Administration?	N	None issued to date	
<b>SSMP Monitoring</b>			
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project?	Y		
Grantee reviews the SSMP and related project plans to determine if updates are necessary?	Y		
Does the grantee implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify.	Y		
Does the grantee maintain a regularly scheduled report on the status of safety and security activities?	Y	Reported Monthly	
Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	Y		
Does the grantee update the safety and security responsibility matrix/organization chart as necessary?	Y		
Has the grantee allocated sufficient resources to oversee or carry out safety and security activities?	Y		
Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases?	Y		

Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities?	Y	
Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	
Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted.	Y	
Has the grantee ensured the development of safety design criteria?	Y	
Has the grantee ensured the development of security design criteria?	Y	
Has the grantee verified conformance with the safety and security requirements in the design?	N	Will be done during FD/Construction
Has the grantee identified conformance with safety and security requirements in equipment and materials procurement?	N	Will be done during FD/Construction
Has the grantee verified construction specification conformance?	N	Will be done during construction
Has the grantee identified safety and security critical tests to be performed prior to passenger operations?	N	Will be done during Rail Activation phase
Has the grantee verified conformance with safety and security requirements during testing, inspection and start up phases?	N	Will be done during Rail Activation phase
Does the grantee evaluate change orders, design waivers, or test variances for potential hazards and/or vulnerabilities?	N	Will be done during FD/Construction
Has the grantee ensured the performance of safety and security analyses for proposed work-arounds?	N	Will be done during Rail Activation phase
Has the grantee demonstrated through meetings or other methods, the integration of safety and security in the following: <ul style="list-style-type: none"> <li>• Activation Plan and Procedures</li> <li>• Integrated Test Plan and Procedures</li> <li>• Operations and Maintenance Plan</li> <li>• Emergency Operations Plan</li> </ul>	N	Will be done during Rail Activation phase
Has the grantee issued final safety and security certification?	N	Will be done after completion of Rail Activation phase
Has the grantee issued the final safety and security verification report?	N	Will be done during Rail Activation phase
<b>Construction Safety</b>		
Does the grantee have a documented/implementation Contractor Safety Program with which it expects contractors to comply?	Y	CSP development is included in construction contracts
Does the grantee's contractor(s) have a documented company-wide safety and security program plan?	TBD	Is a requirement of CSSP
Does the grantee's contractor(s) have a site-specific safety and security program plan?	TBD	Is a requirement of CSSP
Provide the grantee's OSHA statistics compared to the national average for the same type of work?	TBD	None developed yet
If the comparison is not favorable, what actions are being taken by the grantee to improve its safety record?	TBD	None developed yet
Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures?	Y	Audit required in CSSP

<b>Federal Railroad Administration</b>		
If the shared track: has the grantee submitted its waiver request application to FRA? (Please identify any specific regulations for which waivers are being requested)	NA	
If the shared corridor: has grantee specified specific measures to address shared corridor safety concerns?	NA	
Is the Collision Hazard Analysis underway?	NA	
Other FRA required Hazard Analysis – fencing, etc?	NA	
Does the project have Quiet Zones?	NA	
Does FRA attend Quarterly Review Meetings?	NA	